

NISTIR 6774

Workshop On Fire Testing Measurement Needs: Proceedings

William Grosshandler
(Editor)



NIST

National Institute of Standards and Technology
Technology Administration, U.S. Department of Commerce

NISTIR 6774

Workshop On Fire Testing Measurement Needs: Proceedings

William Grosshandler
(Editor)

Building and Fire Research Laboratory

August 2001



U.S. Department of Commerce
Donald Evans, Secretary

National Institute of Standards and Technology
Dr. Karen H. Brown, Acting Director

BFRL Workshop on
Fire Testing Measurement Needs

John L. de Ris
FM Global
June 18-19

Fire Testing Measurement Needs

- Three Challenges
 1. Establish Relationship between Lab. Measurements and Actual Fire Hazards
 2. Smoke Density Meters – Establish Market
 3. Calibration of Heat Flux Gages – Establish Market

Fire Testing Measurement Needs

1. Establish Relationship between Lab. Measurements and Actual Fire Hazards
 - This is a Primary BFRL's Mission
 - It Provides the Technical Foundation for the Fire Test Industry

Fire Testing Measurement Needs

1. Establish Relationship between Lab. Measurements and Actual Fire Hazards
 - Some Previous BFRL Accomplishments
 - Ingberg's E-119 Test
 - Fabric Flammability Test
 - NBS Smoke Chamber
 - Flooring and LIFT Radiant Panel Tests
 - Cone Calorimeter
 - New Tests. Furniture?, Cigarettes?

Fire Testing Measurement Needs

2. Smoke Density Meters – Establish Market
 - Currently no Approved Smoke Density Meters are available for Purchase.
 - Laboratories typically build their own.

Fire Testing Measurement Needs

- Dr. George Mulholland has developed the Science
- BFRL has Prepared an Excellent Approval (Performance) Standard
- **Recommendation:** Develop a market by Purchasing one or more Instruments that are Approved by a 3rd Party as meeting BFRL's Approval Standard.

Fire Testing Measurement Needs

3. Calibration of Heat Flux Gages – Establish Market

- Heat Flux Gages are becoming important
- Other than from gage manufacturers there is no affordable Calibration Service in the US
- BFRL has difficulty in calibrating its own gages

Fire Testing Measurement Needs

3. Calibration of Heat Flux Gages – Establish Market

- **Recommendation:**
 1. Develop an Approval (Performance) Standard,
 2. Issue a RFP for BFRL's own calibration needs.